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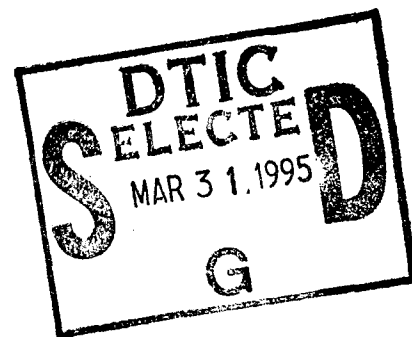
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Inventor Peter R. Trachuk

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1 Navy Case No. 75871

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3 REMOVABLE ONE-PIECE TRUCK BED DIVIDER

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5 STATEMENT OF GOVERNMENT INTEREST

6 The invention described herein may be manufactured and used
7 by or for the Government of the United States of America for
8 governmental purposes without the payment of any royalties
9 thereon or therefore.

10
11 BACKGROUND OF THE INVENTION

12
13 (1) Field Of The Invention

14 The present invention relates to truck bed dividers for
15 containing loose articles and more particularly, to a removable,
16 one-piece truck bed divider.

17 (2) Description of Prior Art

18 Trucks, such as pick-up trucks having a truck bed, are
19 useful for transporting cargo such as tools, wood, equipment,
20 etc. Often, tools and other such loose articles must be
21 contained in one section of the pick-up truck bed to prevent the
22 loose articles from sliding around in or out of the truck bed and
23 damaging the cargo itself, the truck bed or individuals. In the
24 past, enclosed boxes have been designed for the bed of a pick-up
25 truck to hold tools and other small articles which are
26 susceptible to sliding and moving in the bed of the truck.

1 However, such enclosed boxes are designed primarily for small
2 tools or other small articles. The limitations in space make the
3 enclosed boxes unsuitable for holding larger and more awkwardly
4 shaped tools or articles in the bed of a truck.

5 Other truck bed compartments include pivotable cages which
6 must be coupled or fastened to the truck and require assembly of
7 multiple moving pieces. Such devices often take considerable
8 amounts of time to assemble and secure to the bed of the truck.
9 Once these truck bed cages having multiple moving pieces are
10 assembled and fastened to a truck bed, they are not easily
11 removed. Further, such devices having pivotable parts do not
12 allow for articles to be easily placed in and removed from the
13 compartment in the truck bed.

14 Accordingly, what is needed is a truck bed divider which is
15 a unitary, one-piece structure and which is further easily
16 positioned and removed from the bed of a truck. Further, the
17 truck bed divider should not require moving or pivoting any
18 pieces after the divider has been positioned in the truck.
19 Finally, the truck bed divider should have an open top portion
20 allowing large and awkwardly shaped articles to extend above the
21 top of the truck bed while still being held securely by the truck
22 bed divider.

23 24 SUMMARY OF THE INVENTION

25 A truck bed divider according to the present invention is a
26 removable, one-piece structure which is adapted to removably sit

1 in and fit the contour of a region of a truck bed for containing
2 loose articles in the truck bed. The truck bed divider includes
3 a dividing portion having a plurality of bars extending from a
4 top region of the truck bed to a bottom region of the truck bed
5 to prevent loose articles contained in the truck bed from moving
6 to another region of the truck bed.

7 The truck bed divider further includes a top frame portion
8 which is one piece with the dividing portion and is adapted to
9 extend in a plane parallel to the top region of the truck bed.
10 The top frame portion is open to allow for articles to extend
11 above the top region of the truck bed. In a preferred
12 embodiment, the top frame portion is generally rectangular shaped
13 and is adapted to be positioned or lie against side portions of
14 the truck bed.

15 The truck bed divider further includes a bottom frame
16 portion which is one piece with the dividing portion and is
17 adapted to be positioned against the bottom portion of the truck
18 bed. In a preferred embodiment, the bottom frame portion is
19 generally rectangular shaped and is adapted to be positioned
20 between wheel wells or wheel well regions in the bed of the
21 truck.

22 The truck bed divider further includes at least one divider
23 restraining portion adapted to abut a portion of the truck and
24 prevent movement of the truck bed divider in the truck bed. In a
25 preferred embodiment, the truck bed divider is adapted to fit
26 between the cab of the truck and the wheel wells of the truck.

1 In this preferred embodiment, the divider restraining portion
2 includes bracing bars extending from the bottom frame portion and
3 adapted to abut the wheel wells for preventing movement in the
4 truck bed.

5 In the preferred embodiment, the truck bed divider is made
6 of steel and the top frame portion, the dividing portion and the
7 bottom frame portion are welded together as one piece. In
8 another embodiment, the truck bed divider is made of molded
9 plastic, and the top frame portion, the dividing portion and the
10 bottom frame portion are molded together as one piece.

11 In a preferred embodiment, the truck bed divider further
12 includes at least one support bar extending between the top frame
13 portion and the bottom frame portion, for supporting the top
14 frame portion and bottom frame portion in a spaced parallel
15 relationship.

16 17 BRIEF DESCRIPTION OF THE DRAWINGS

18 A more complete understanding of the invention and many of
19 the attendant advantages thereto will be readily appreciated as
20 the same becomes better understood by reference to the following
21 detailed description when considered in conjunction with the
22 accompanying drawing wherein:

23 FIG. 1 is a perspective view of the removable, one-piece,
24 truck bed divider according to the present invention; and

1 FIG. 2 is a perspective view of the removable, one-piece,
2 truck bed divider according to the present invention which is
3 positioned in a front portion a truck bed adjacent the truck cab.
4

5 DETAILED DESCRIPTION OF THE INVENTION

6 The removable, one-piece truck bed divider 20, FIG. 1,
7 according to the present invention is adapted to be removably
8 positioned in a truck bed of a pick-up truck. The removable,
9 one-piece truck bed divider 20 includes a dividing portion 22 for
10 containing loose articles such as tools, wood, or other
11 equipment. The dividing portion 22 of the truck bed divider 20
12 prevents the loose articles from moving or sliding in the truck
13 bed or out of the truck.

14 The dividing portion 22 is supported by and is one-piece
15 with a top frame portion 24 and a bottom frame portion 26. A
16 plurality of dividing bars 23 extend from bar 21 of the top frame
17 portion 24 to bar 25 of the bottom frame portion 26, to form
18 dividing portion 22. The truck bed divider 20 further includes
19 divider restraining portions 28 which extend from the divider 20
20 for bracing the divider 20 in a truck bed.

21 In a preferred embodiment, the top frame portion 24 includes
22 bars 21 which form a rectangular shape for supporting the truck
23 bed divider 20 in a truck bed and leaving the top region of the
24 truck bed open. The preferred embodiment further includes a
25 bottom frame portion 26 having a rectangular shape and support

1 bars 29 which extend between and are one piece with the top frame
2 portion 24 and bottom frame portion 26.

3 The truck bed divider 20 is generally designed to fit the
4 contour of a truck bed so that the truck bed divider 20 may be
5 easily positioned in the truck bed and removed from the truck
6 bed. In the preferred embodiment, shown in Fig. 2, the truck bed
7 divider 20 is designed to be positioned in a front portion of the
8 truck bed 13 between the truck cab 15 and wheel wells 16. The
9 truck bed divider 20 is positioned in such a way that the truck
10 bed divider 20 will not move or slide in the truck bed 13. In
11 the preferred embodiment, movement of the truck bed divider 20 is
12 prevented by one or more braces 28 which rest against the truck
13 bed itself without physically coupling the divider 20 to the
14 truck.

15 Thus, when the truck bed divider 20 is positioned in truck
16 bed 13, the plurality of dividing bars 23 extend generally
17 vertically to prevent loose articles 2, 4 contained in the
18 divided region 14 of the truck bed from moving out of the divided
19 region 14. The dividing bars 23 also allow longer tools or
20 articles 3 to extend between the bars 23 into other regions of
21 the truck bed 13 while still minimizing sliding of the article or
22 tool in the truck bed 13.

23 When the truck bed divider 20 is positioned in the truck
24 bed, the top frame portion 24 is generally positioned in a plane
25 parallel to a plane of the open top region 17 of the truck bed
26 13. The top frame portion 24 supports the truck bed divider 20

1 in the truck bed 13 while leaving the top region 17 open allowing
2 tools and articles 4 to extend above the top region when they are
3 contained in the region 14 of the truck bed 13. In the preferred
4 embodiment, the top frame portion 24 is positioned against sides
5 18 of the truck bed 13.

6 The bottom frame portion 26 is positioned against a floor
7 19 of the truck bed 13 and lies in a plane which is generally
8 parallel to the plane of the top frame portion 24. In the
9 preferred embodiment, the rectangular shaped bottom frame portion
10 26 has sides which abut the cab 15 and the wheel wells 16 in the
11 truck bed 13 for bracing the divider 20. In the preferred
12 embodiment, the support bars 29 extending between the top frame
13 portion 24 and the bottom frame portion 26 add additional support
14 for bracing the truck bed divider 20 against the cab 15.

15 The truck bed divider restraining portions or braces 28 abut
16 a portion of the truck bed 13 to brace the truck bed divider 20
17 and prevent the truck bed divider 20 from moving in the truck bed
18 13 without actually physically coupling or fastening the truck
19 bed divider 20 to the truck bed 13. In a preferred embodiment,
20 the divider restraining portions 28 first and second include
21 bracing bars extending from side portions 27 of the bottom frame
22 portion 26. The restraining portions or bracing bars 28 abut
23 wheel wells 16 in the truck bed 13 to brace the divider 20 in the
24 front portion of the truck bed 13 and prevent the truck bed
25 divider 20 from sliding to the rear portion of the truck bed.

1 Bracing, without coupling or fastening, allows the truck bed
2 divider 20 to be easily and instantly lifted out of the truck
3 bed. The ease of removing the truck bed divider without
4 uncoupling or unfastening is a significant advantage when used at
5 a job site. Quick removal allows use of the entire truck bed
6 instantly without wasting time removing a tool box. Also, quick
7 removal allows the truck bed divider and articles held therein to
8 be stored away easily preventing theft.

9 In the preferred embodiment, the truck bed divider 20 is
10 made of welded mild steel such that the top frame portion 24, the
11 dividing portion 22, and the bottom frame portion 26 are welded
12 together to form a single unitary piece. Alternatively, the
13 truck bed divider 20 may be made of a molded plastic such that
14 the top frame portion 24, the dividing portion 22 and the bottom
15 frame portion 26 are molded as a single, unitary piece. The
16 truck bed divider 20 according to the present invention, however,
17 is not limited to these materials and may also include a wire or
18 nylon web.

19 The truck bed divider may additionally include padding
20 material for the dividing portion, frames or bracing bars; or a
21 tarp or bungee cords for covering or securing articles in the
22 region of the truck bed. However, the easily removable, one-
23 piece structure of the truck bed divider, by itself, provides the
24 significant advantages of securing loose articles in a truck bed
25 while maintaining flexibility in removing the divider quickly and
26 easily. Further, the open top region of the truck bed divider

1 provides the advantage of carrying or holding articles of all
2 sizes.

3 In light of the above, it is therefore understood that
4 the invention may be
5 practiced otherwise than as specifically described.

1 Navy Case No. 75871

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3 REMOVABLE, ONE-PIECE TRUCK BED DIVIDER

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5 ABSTRACT OF THE DISCLOSURE

6 A truck bed divider having a unitary, one-piece structure
7 which may be easily positioned in and instantly removed from a
8 truck bed includes a dividing portion having a plurality of bars
9 for preventing articles in the truck bed from moving or sliding
10 in the truck bed. The divider further includes top and bottom
11 frame portions which are joined to the divider portion and which
12 support the divider portion in the truck bed. Retaining or
13 bracing portions brace the truck bed divider against the truck
14 bed.

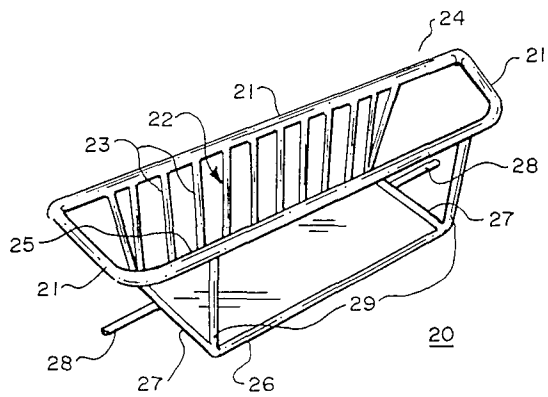


FIG. 1

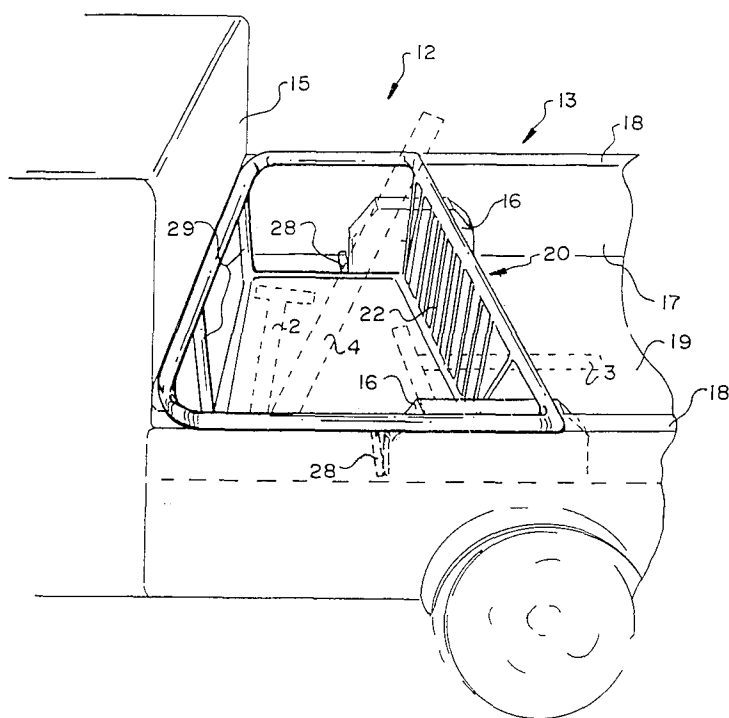


FIG. 2